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10/529,271	03/25/2005	Gunther Brandenburg	234700	2137

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EXAMINER
MARINI, MATTHEW G

ART UNIT	PAPER NUMBER
2854	

NOTIFICATION DATE	DELIVERY MODE
12/24/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/529,271	BRANDENBURG ET AL.	
	Examiner	Art Unit	
	MATTHEW G. MARINI	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Billet (EP 1044915).

As to Claim 18, Billet teaches in Fig. 1, an apparatus comprising: a controller, 28, connected to a motor, 42, of at least one of the pulling units, 40; and a first cut-register sensor, 54, disposed to detect a first actual value of the cut register, 56, and feed the detected first actual value to the controller, 28, wherein the controller, 28, controls the motor, 42, to adjust a speed of said at least one pulling unit, 40, based on the first actual value of the cut register, 56, as read in paragraph 41.

The examiner would like to point out that the limitations recited in the preamble have been treated as intended use. The limitations found in the preamble merely recite the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

As to Claim 19, Billet teaches in Fig. 1, an apparatus further including a second cut-register sensor, 36, connected to the controller, 28, and disposed at a second pulling unit, 20, upstream of said at least one pulling unit, 40, the second cut-register sensor, 36, detecting a second actual value, pulses created by the movement of the web, 16, correlating to the cut register, 56, printed on the web, 16, and feeding the second actual value to the controller, 28, as seen in Fig. 1, the controller, 28, is capable of applying feedforward control based on the second actual value in the equation in paragraph 47, and as read in paragraphs 46 and 47.

As to claim 20, Billet teaches in Fig. 1, the apparatus further including: a computing unit, indirectly taught in paragraph, 41, connected to the controller, 28, the computing unit, calculating an actual state of the cut register based on a mathematical model using a reference table, paragraph, 49, where the mathematic model, uses the length of the web in the buffer, Lb; the controller, 28, receiving the calculated actual state from the computing unit and compares it to a calculated count from encoder, 36, and depending on the result of Lb and its comparison, the control, 28, is capable of applying, feedforward control based on the differentiating proportion to correct the cut register of the web, 16, without the need of measuring, cut registers, 56, paragraph, 49.

As to Claim 21, Billet teaches in Fig. 1 the apparatus where in the controller, 28, further connected to a motor, 42, of a second pulling unit, 40, downstream of said at least one pulling unit, 20, and provides to the second pulling unit, 40, a second setpoint

value, i.e. pulse, representing a predetermined desired placement for a cut of on the web for controlling a lead of the second pulling unit, 40, paragraph 41, lines 4-15.

As to claim 22, Billet teaches in Fig. 1, the apparatus wherein the controller, 28, is capable of controlling said at least one pulling unit, 40, to compensate for a counteracting effect by forces of the web, 16, on a torque of the motor, 42, of said at least one pulling unit, 40. Because there is no structure further defining how these elements compensated for counteracting forces on the web, the listed elements above of Billet are therefore capable of performing the functional language of the controller.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billet (EP 1 044 915) in view of Hanlan (4,361,260).

As to Claim 12, Billet teaches in Fig. 1 structure capable of performing a method for controlling a cut register, 56, of a web-fed rotary press, 12, the cut register, 56, representing placement of cuts on a web, in between images, Fig. 3, comprising: guiding a web, 16, leaving a last printing press, 12, in which indicia has been printed thereon, to a cross-cutting device, 48, via at least two pulling units, 20 and 40, with

adjustable leads, via motors, 22 and 42, wherein the pulling units are independently rotatable from one another and from the cross-cutting device, 48, as seen in Fig. 1; and changing a circumferential speed by controlling the motor, 42, of at least one of the pulling units, 40, to adjust the cut register, paragraphs 38-41.

Billet fails to teach there being no movable tensioning roller between the lat least two pulling units.

However, Hanlan teaches in Fig.1 a device in which there is no movable tensioning roller between the lat least two pulling units, in which the two pulling units are independently controlled, like that of the pulling units taught in Billet. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Billet by removing the tensioning roller taught in Fig. 1 of Billet so as to resemble the system taught by Hanlan in Fig. 1 because in Col. 14 lines 19-21 Hanlan teaches the disclosed invention provides a reliable registration system with simplified structure, i.e. no tensioning roller between pulling stations.

As to Claim 13, Billet teaches in Fig. 1 the method where the step of changing includes: detecting a first actual value of the cut register using a first cut-register sensor, 54; feeding the detected first actual value of the cut register to a controller, 28; comparing, by the controller, 28, the detected actual value of the cut register, from sensor 54, of the cut register, 56, with a cut-register set point value representing a predetermined desired placement of a cut on the web, paragraph 41, lines 4-11;

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adjusting, by the controller, 28, a motor, 42, of said at least one pulling unit, 40, to change the circumferential speed, paragraph 41.

As to Claim 14, Billet teaches in Fig. 1 the method further including: providing a second cut-register sensor, 36, positioned at a second pulling unit, 20, upstream of said at least one pulling unit, 40; detecting a second actual value of the cut register via pulses created as the web is fed, paragraph 29, using the second cut-register sensor, 36; deriving a differentiating proportion from the first and second actual values of the cut register, using equation seen in paragraph 47; and is capable of applying, by the controller, 28, feedforward control based on the differentiating proportion, paragraphs, 46-47.

As to claim 15, Billet teaches in Fig. 1, the method further including: determining an actual state of the cut register using a reference table based on a mathematical model, paragraph 49, where the mathematic model, discussed in paragraph, 49, uses the length of the web in the buffer; deriving a differentiating proportion from the actual state of the cut register through comparison of a calculated count from encoder, 36; and depending on the result, is capable of applying, by the controller, 28, feedforward control based on the differentiating proportion to correct the cut register of the web, 16, without the need of measuring, cut registers, 56, paragraph, 49.

As to Claim 16, Billet teaches in Fig. 1 the method further including: supplying by the controller, 28, to a second pulling unit, 40, via motor, 42, downstream of said at least one pulling unit, 20, a second setpoint value, i.e. pulse, for controlling a lead of the second pulling unit, 40, paragraph 41, lines 4-15.

As to claim 17, Billet teaches in Fig. 1, the method wherein the controller, 28, is capable of controlling said at least one pulling unit, 40, to compensate for a counteracting effect by forces of the web, 16, on a torque of the motor, 42, of said at least one pulling unit, 40. Because there is no structure further defining how these elements compensated for counteracting forces on the web, the listed elements above of Billet are therefore capable of performing the functional language of the controller.

Response to Arguments

Applicant's arguments with respect to claim 12 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant's arguments of claim 18, specifically how Billet fails to teach an apparatus where there is no tensioning roller between the two pulling units, the examiner would like to point out that these limitations are found in the preamble. Therefore, those limitations have been treated as intended use. The preamble limitations merely recite the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re*

Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Therefore, the positively recited limitations found in the body of claim 18 have been met by the structure taught by Billet, as described in the above rejection of claim 18.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

/Ren L Yan/
Primary Examiner, Art Unit 2854